

MeSH Highlights 2022



Objective and Audience



Objective

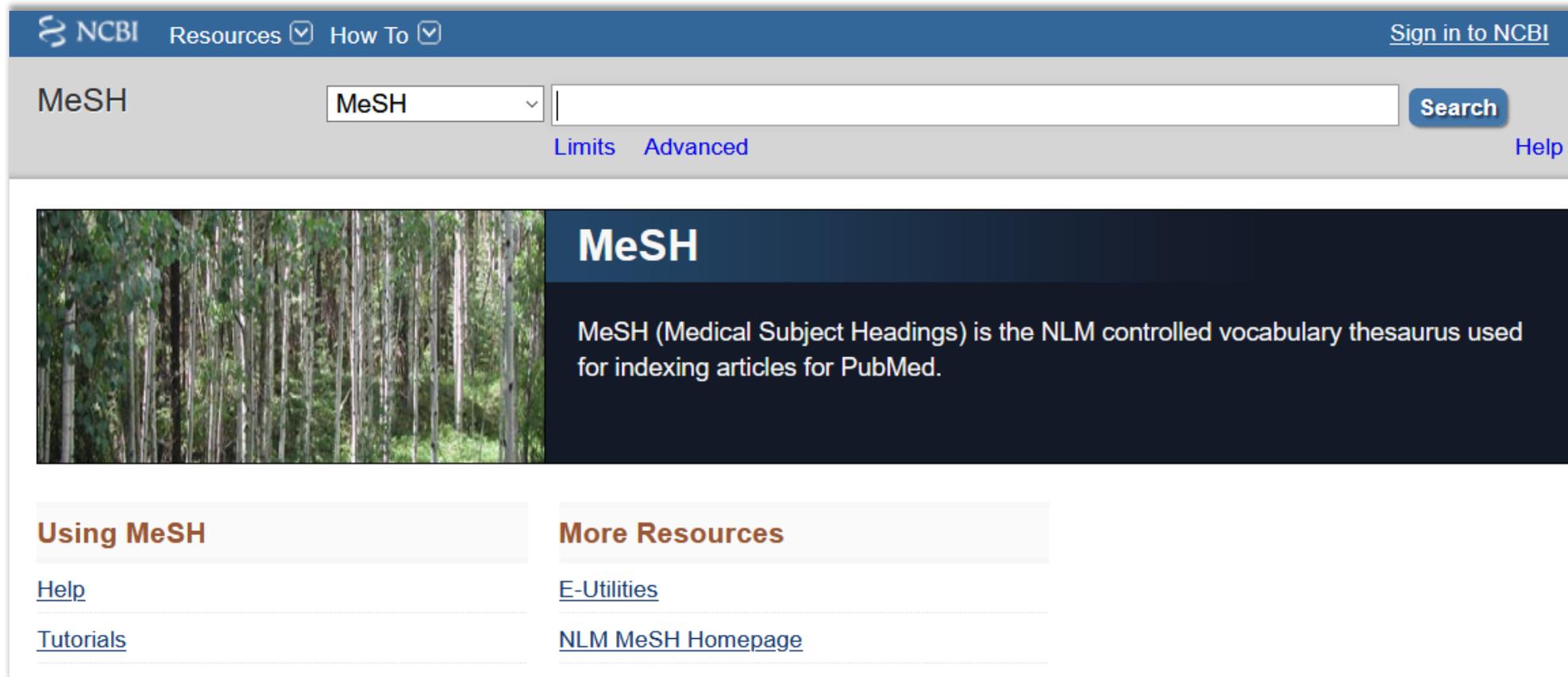
This class will introduce changes made in MeSH for 2022 and discuss how they may impact you as a PubMed searcher.



Audience

PubMed searchers, librarians, catalogers who are familiar with MeSH's structure (Main Headings, SCR, ET, etc.)

MeSH Database



The screenshot shows the MeSH Database homepage. At the top, there is a blue navigation bar with the NCBI logo, links for 'Resources' and 'How To', and a 'Sign in to NCBI' link. Below this is a search bar with 'MeSH' selected in a dropdown menu, a search input field, and a 'Search' button. Links for 'Limits', 'Advanced', and 'Help' are also present. The main content area features a large image of a forest on the left and a dark blue box on the right with the text: 'MeSH (Medical Subject Headings) is the NLM controlled vocabulary thesaurus used for indexing articles for PubMed.' Below this, there are two sections: 'Using MeSH' with links for 'Help' and 'Tutorials', and 'More Resources' with links for 'E-Utilities' and 'NLM MeSH Homepage'.

NCBI Resources How To Sign in to NCBI

MeSH MeSH Search Limits Advanced Help

MeSH

MeSH (Medical Subject Headings) is the NLM controlled vocabulary thesaurus used for indexing articles for PubMed.

Using MeSH

[Help](#)

[Tutorials](#)

More Resources

[E-Utilities](#)

[NLM MeSH Homepage](#)

Agenda

1. Overview
2. Examples of New & Updated Terms
 - a) COVID-19 Related Terms
 - b) Other Disease Related Terms
 - c) Population Groups
 - d) Social Determinants of Health
3. Automated Indexing
4. Q&A panel

Overview



NLM TECHNICAL BULLETIN

NATIONAL LIBRARY OF MEDICINE | NATIONAL INSTITUTES OF HEALTH

MEDLINE Data Changes—2022. NLM Tech Bull. 2021 Nov-Dec;(443):e8

Overview: Stats

30,194

MeSH Main Headings



277

New Main Headings

318,110

Supplementary Concept Records

0

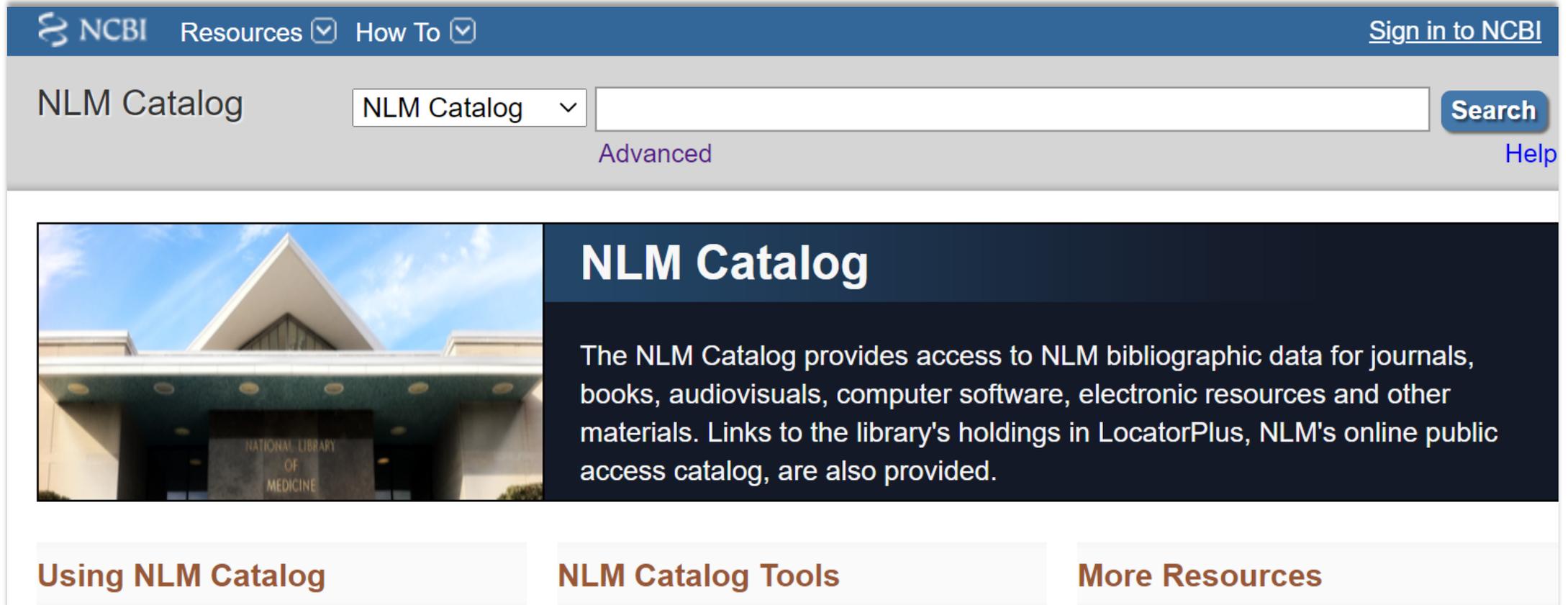
Deleted MeSH Subheadings

New MeSH Headings by Branch

Branch	Nº
A. Anatomy	28
B. Organisms	14
C. Diseases	25
D. Chemicals and Drugs	89
E. Analytical, Diagnostic and Therapeutic Techniques and Equipment	30
F. Psychiatry and Psychology	27
G. Phenomena and Processes	24
H. Disciplines and Occupations	3

Branch	Nº
I. Anthropology, Education, Sociology and Social Phenomena	31
J. Technology, Industry, Agriculture	8
K. Humanities	1
L. Information Science	12
M. Named Groups	9
N. Health Care	29
V. Publication Characteristics	0
Z. Geographicals	1

MeSH in Cataloging



The screenshot shows the top navigation bar of the NLM Catalog website. It includes the NCBI logo, a 'Resources' dropdown menu, a 'How To' dropdown menu, and a 'Sign in to NCBI' link. Below the navigation bar is a search area with the text 'NLM Catalog', a dropdown menu set to 'NLM Catalog', a search input field, a 'Search' button, and a 'Help' link. The main content area features a large image of the National Library of Medicine building on the left. To the right of the image is a dark blue header with the text 'NLM Catalog' in white. Below this header is a paragraph of text describing the NLM Catalog. At the bottom of the main content area are three light blue buttons: 'Using NLM Catalog', 'NLM Catalog Tools', and 'More Resources'.

NCBI Resources ▾ How To ▾ [Sign in to NCBI](#)

NLM Catalog NLM Catalog ▾ [Search](#) [Help](#)

[Advanced](#)



NLM Catalog

The NLM Catalog provides access to NLM bibliographic data for journals, books, audiovisuals, computer software, electronic resources and other materials. Links to the library's holdings in LocatorPlus, NLM's online public access catalog, are also provided.

[Using NLM Catalog](#) [NLM Catalog Tools](#) [More Resources](#)

MeSH in Cataloging



NLM TECHNICAL BULLETIN

NATIONAL LIBRARY OF MEDICINE | NATIONAL INSTITUTES OF HEALTH

Willis S. Use of 2022 MeSH in Cataloging. NLM Tech Bull. 2021 Nov-Dec;(443):e7.

Examples of New & Updated Terms

COVID-19



VACCINES, SYNTHETIC [Before 2022]

VACCINES, CONJUGATE

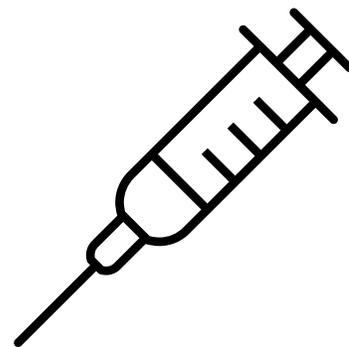
VACCINES, DNA

VACCINES, EDIBLE

VACCINES, VIROSOME

VACCINES, VIRUS-LIKE PARTICLE

COVID-19



VACCINES, SYNTHETIC [2022]

NUCLEIC ACID-BASED VACCINES

VACCINES, CONJUGATE

VACCINES, DNA

VACCINES, EDIBLE

VACCINES, VIROSOME

VACCINES, VIRUS-LIKE PARTICLE

NUCLEIC ACID-BASED VACCINES

[2022]

VACCINES, DNA

ChAdOx1 nCoV-19

mRNA VACCINES

2019-nCoV VACCINE mRNA-1273

BNT162 VACCINE

Previous PubMed Search for VACCINE, DNA and the former SCR of mRNA VACCINE

NIH National Library of Medicine
National Center for Biotechnology Information

Log in

PubMed.gov

(vaccine, dna[MeSH Terms]) OR (mRNA vaccine[Supplementary Concept])

Advanced Create alert Create RSS Search

User Guide

Save Email Send to Sorted by: Best match Display options

MY NCBI FILTERS

9,887 results Page 1 of 989

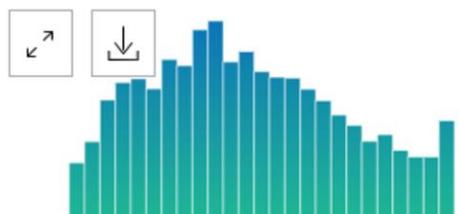
RESULTS BY YEAR

DNA vaccines against COVID-19: Perspectives and challenges.

1 Silveira MM, Moreira GMSG, Mendonça M.

Cite Life Sci. 2021 Feb 15;267:118919. doi: 10.1016/j.lfs.2020.118919. Epub 2020 Dec 19.

Share PMID: 33352173 [Free PMC article.](#) Review.



MeSH 2022, NUCLEIC ACID-BASED VACCINES

NIH National Library of Medicine National Center for Biotechnology Information Log in

PubMed.gov

Search: "Nucleic Acid-based Vaccines"[Mesh]

Advanced Create alert

VACCINES, DNA — ChAdOx1 nCOV-19

mRNA VACCINES — 2019-nCoV VACCINE mRNA-1273

BNT162 VACCINE

Save Email Send to Sorted by: Most recent Display options

MY NCBI FILTERS 10,906 results Page 1 of 1,091

RESULTS BY YEAR

1 Jiang X, Li C, Fan X, Chen X, Guo M, Lan J.
 Oral Health Prev Dent. 2021 Jan 7;19(1):683-688. doi: 10.3290/j.ohpd.b2448589.
 PMID: 34918502

2 A case report of ChAdOx1 nCoV-19 vaccine-associated encephalitis.

RESPIRATORY AEROSOLS AND DROPLETS

COVID-19

MeSH

MeSH

[Limits](#) [Advanced](#)

Full [Send to:](#)

Respiratory Aerosols and Droplets

Physiological aerosols and droplets expelled during coughing, sneezing, speaking and exhalation. Depending on the size, aerodynamic distribution or concentration they may play a role in transmission of infectious respiratory diseases.

Year introduced: 2022

Review

[Viruses](#). 2020 Dec 31;13(1):54. doi: 10.3390/v13010054.

Lead SARS-CoV-2 Candidate Vaccines: Expectations from Phase III Trials and Recommendations Post-Vaccine Approval

[Ebenezer Tumban](#)¹Affiliations [+](#) expandPMID: 33396343 PMCID: [PMC7824305](#) DOI: [10.3390/v13010054](#)[Free PMC article](#)

Abstract

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is transmitted primarily through [respiratory droplets/aerosols](#) and it causes COVID-19. The virus infects epithelial cells by using the spike protein on its surface to bind to angiotensin-converting enzyme 2 receptor on the cells. Thus, candidate vaccines targeting the spike protein are currently being developed to prevent against

Article
Example

MeSH 2021

History and Search Details				Download	Delete
Search	Actions	Details	Query	Results	Time
#5	...	▼	<p>Search: respiratory droplets aerosols</p> <p>("eur med j respir"[Journal] OR "respiratory"[All Fields]) AND ("droplet"[All Fields] OR "droplet s"[All Fields] OR "droplets"[All Fields]) AND ("aerosol s"[All Fields] OR "aerosolic"[All Fields] OR "aerosolization"[All Fields] OR "aerosolizations"[All Fields] OR "aerosolize"[All Fields] OR "aerosolized"[All Fields] OR "aerosolizer"[All Fields] OR "aerosolizes"[All Fields] OR "aerosolizing"[All Fields] OR "aerosols"[MeSH Terms] OR "aerosols"[All Fields] OR "aerosol"[All Fields])</p> <p>Translations</p> <p>respiratory: "Eur Med J Respir"[Journal: __jid101776214] OR "respiratory"[All Fields]</p> <p>droplets: "droplet"[All Fields] OR "droplets"[All Fields] OR "droplets"[All</p>	960	14:47:06

Consult the MeSH Database

MeSH

MeSH

Limits Advanced

Full Send to:

Aerosols

Colloids with a gaseous dispersing phase and either liquid (fog) or solid (smoke) dispersed phase; used in fumigation or in inhalation therapy; may contain propellant agents.

[All MeSH Categories](#)

- [Chemicals and Drugs Category](#)
- [Complex Mixtures](#)
- [Colloids](#)
- Aerosols**

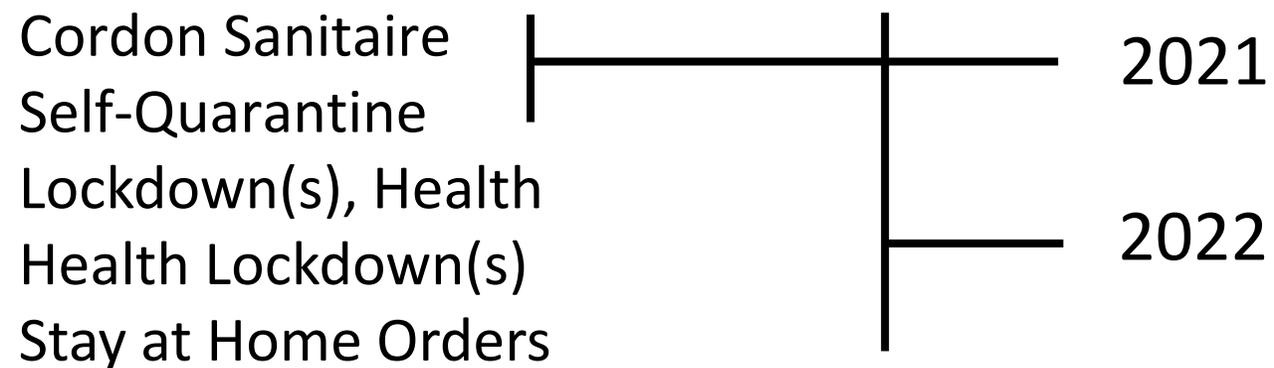
MeSH 2022

History and Search Details				Download	Delete
Search	Actions	Details	Query	Results	Time
#3	...	▼	Search: respiratory droplets aerosols Sort by: Most Recent ("respiratory aerosols and droplets"[MeSH Terms] OR ("respiratory"[All Fields] AND "aerosols"[All Fields] AND "droplets"[All Fields]) OR "respiratory aerosols and droplets"[All Fields] OR ("respiratory"[All Fields] AND "droplets"[All Fields]) OR "respiratory droplets"[All Fields]) AND ("aerosol s"[All Fields] OR "aerosolic"[All Fields] OR "aerosolization"[All Fields] OR "aerosolizations"[All Fields] OR "aerosolize"[All Fields] OR "aerosolized"[All Fields] OR "aerosolizer"[All Fields] OR "aerosolizes"[All Fields] OR "aerosolizing"[All Fields] OR "aerosols"[MeSH Terms] OR "aerosols"[All Fields] OR "aerosol"[All Fields])	753	13:59:07

COVID-19

QUARANTINE

Entry Terms



Variations of entry terms

History and Search Details Download Delete

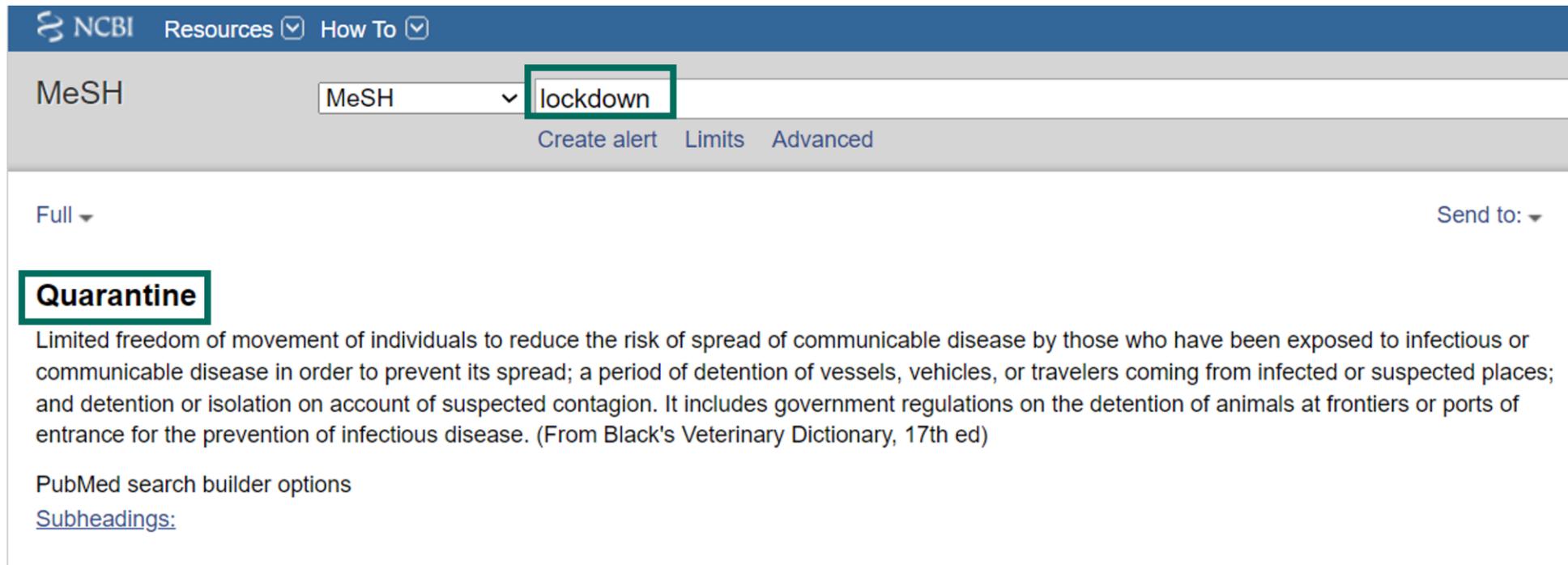
Search	Actions	Details	Query	Results	Time
#6	...	▼	Search: health lockdown Sort by: Most Recent "quarantine"[MeSH Terms] OR "quarantine"[All Fields] OR ("health"[All Fields] AND "lockdown"[All Fields]) OR "health lockdown"[All Fields]	22,874	11:31:30

VS

History and Search Details Download Delete

Search	Actions	Details	Query	Results	Time
#7	...	▼	Search: lockdown Sort by: Most Recent "lockdown"[All Fields]	10,400	11:34:08

The MeSH Database is your friend.



The screenshot shows the MeSH database search interface. At the top, there is a navigation bar with the NCBI logo and links for 'Resources' and 'How To'. Below this, the 'MeSH' section is visible, featuring a search bar with 'lockdown' entered. A dropdown menu is open, showing 'MeSH' as the selected category. Below the search bar, there are links for 'Create alert', 'Limits', and 'Advanced'. On the left, there is a 'Full' dropdown menu. On the right, there is a 'Send to:' dropdown menu. The main content area displays the search results for 'lockdown', with the term 'Quarantine' highlighted in a green box. Below the highlighted term, there is a definition: 'Limited freedom of movement of individuals to reduce the risk of spread of communicable disease by those who have been exposed to infectious or communicable disease in order to prevent its spread; a period of detention of vessels, vehicles, or travelers coming from infected or suspected places; and detention or isolation on account of suspected contagion. It includes government regulations on the detention of animals at frontiers or ports of entrance for the prevention of infectious disease. (From Black's Veterinary Dictionary, 17th ed)'. Below the definition, there are links for 'PubMed search builder options' and 'Subheadings:'.

NCBI Resources How To

MeSH MeSH lockdown

Create alert Limits Advanced

Full Send to:

Quarantine

Limited freedom of movement of individuals to reduce the risk of spread of communicable disease by those who have been exposed to infectious or communicable disease in order to prevent its spread; a period of detention of vessels, vehicles, or travelers coming from infected or suspected places; and detention or isolation on account of suspected contagion. It includes government regulations on the detention of animals at frontiers or ports of entrance for the prevention of infectious disease. (From Black's Veterinary Dictionary, 17th ed)

PubMed search builder options

[Subheadings:](#)

Diseases

UROGENITAL DISEASES

MeSH

MeSH



Limits Advanced

Full

Urogenital Diseases

Pathological processes of the URINARY TRACT and the reproductive system (GENITALIA).

Year introduced: 2022

PubMed search builder options

[Subheadings:](#)

Diseases

[2021]

DISEASES

FEMALE UROGENITAL DISEASES AND PREGNANCY COMPLICATIONS

MALE UROGENITAL DISEASES



[2022]

DISEASES

UROGENITAL DISEASES

GENITAL DISEASES

FEMALE UROGENITAL DISEASES AND PREGNANCY COMPLICATIONS

MALE UROGENITAL DISEASES

MeSH 2021 Sexually Transmitted Diseases

FEMALE UROGENITAL DISEASES AND PREGNANCY COMPLICATIONS

- └─ FEMALE UROGENITAL DISEASES
 - └─ GENITAL DISEASES, FEMALE
 - └─ SEXUALLY TRANSMITTED DISEASES

MeSH 2022 Sexually Transmitted Diseases

UROGENITAL DISEASES

└─ GENITAL DISEASES

└─ GENITAL DISEASES, FEMALE

└─ SEXUALLY TRANSMITTED DISEASES

Ex. "Genital Diseases, Female"[MeSH Terms]

OR ("Sexually Transmitted Diseases"[MeSH Terms] AND "Female"[MeSH Terms])

[2021]

CONTINENTAL POPULATION GROUPS

AFRICAN CONTINENTAL ANCESTRY GROUP

AMERICAN NATIVE CONTINENTAL ANCESTRY GROUP

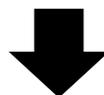
ASIAN CONTINENTAL ANCESTRY GROUP

EUROPEAN CONTINENTAL ANCESTRY GROUP

OCEANIC ANCESTRY GROUP

[ET]

Population
Groups



[2022]

RACIAL GROUPS

BLACKS

AMERICAN NATIVE CONTINENTAL ANCESTRY GROUP

ASIANS

WHITES

NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER

United States™
Census
Bureau

Population Groups

[2021]

ETHNIC GROUPS

AFRICAN AMERICANS
AMISH
ARABS
ASIAN AMERICANS
INDIGENOUS PEOPLES
ROMA
HISPANIC AMERICANS
JEWS



[2022]

ETHNICITY

HISPANIC OR LATINO

[ET: HISPANIC AMERICANS]

Population Groups

[2022]

RACIAL GROUPS

BLACKS

AFRICAN AMERICANS ←

AMERICAN NATIVE CONTINENTAL ANCESTRY GROUP

ASIANS

ASIAN AMERICANS ←

WHITES

NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER

Persons

[2022]

HEALTH DISPARITY, MINORITY AND VULNERABLE POPULATIONS

AFRICAN AMERICANS

AMISH

ARABS

ASIAN AMERICANS

INDIGENOUS PEOPLES

JEWS

ROMA

SEXUAL AND GENDER MINORITIES

VULNERABLE POPULATIONS

Demo

<https://www.ncbi.nlm.nih.gov/mesh/>

What does the literature say about populations that live with health disparities as a result of environmental pollution?

MeSH Changes and PubMed Searching class

MeSH Changes and PubMed Searching 2022

REGISTER NOW

Every year, the Medical Subject Headings (MeSH) are updated. How does this affect your PubMed searches? What happens when a term gets changed, added, removed or moved to a different part of the MeSH hierarchy? How do you accommodate vocabulary changes over time in your comprehensive searches? How do you check your saved searches and alerts?

Join us for answers to these and other questions.

Objectives:

Successful participants will be able to:

- Describe how the MeSH vocabulary is maintained
- Explain how the addition, revision, deletion and

Class Details

Date(s): January 14, 2022

Time: 1:00 PM - 2:30 PM EST

Platform: Webex

CE Credits: 1.50

Class Experience Level: Beginner, Intermediate, Advanced

This is a National NLM class.

REGISTER NOW

24 New Headings on Social Determinants of Health

- ECONOMIC STABILITY
- HOUSING INSTABILITY
- ENVIRONMENTAL JUSTICE
- COMMUNITY SUPPORT
- ACCESS TO HEALTHY FOODS
- CHILD POVERTY
- SOCIAL DEPRIVATION
- HOME ENVIRONMENT
- NEIGHBORHOOD CHARACTERISTICS
- SOCIODEMOGRAPHIC FACTORS
- OSTRACISM
- SYSTEMIC RACISM
- ...and more!

Intersectional Framework

MeSH

[Create alert](#) [Limits](#) [Advanced](#)

Full

Intersectional Framework

Interconnections of social categorizations such as race, class, and gender, creating overlapping and interdependent systems of discrimination or disadvantage.

Year introduced: 2022

PubMed search builder options

- Restrict to MeSH Major Topic.
- Do not include MeSH terms found below this term in the MeSH hierarchy.

Pubmed search for “Intersectional framework”

PubMed.gov "Intersectional Framework"[Mesh] × **Search**

[Advanced](#) [Create alert](#) [Create RSS](#) [User Guide](#)

[Save](#) [Email](#) [Send to](#) Sorted by: Most recent [Display options](#)

MY NCBI FILTERS

11 results

TEXT AVAILABILITY

Abstract

Free full text

Full text

ARTICLE ATTRIBUTE

1 [Cite](#)

[Share](#)

[The intersection race/skin color and gender, smoking and excessive alcohol consumption: cross sectional analysis of the Brazilian National Health Survey, 2013.](#)
Garcia GAF, Silva EKPD, Giatti L, Barreto SM.
Cad Saude Publica. 2021 Dec 1;37(11):e00224220. doi: 10.1590/0102-311X00224220. eCollection 2021.
PMID: 34877990 **Free article.**

Page 1 of 2

Adjusted pubmed search for “intersectional framework”

NIH National Library of Medicine
National Center for Biotechnology Information

PubMed.gov

“intersectional framework”[MeSH Terms] OR (“intersectional”
[Title/Abstract] AND “sociology”[MeSH Terms])

Advanced Create alert Create RSS User Guide

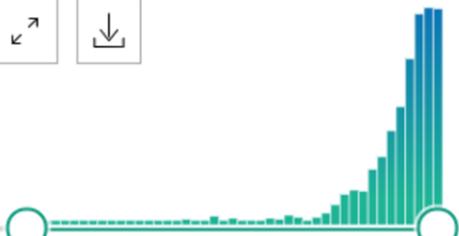
Save Email Send to Sorted by: Most recent ↓ Display options ⚙

MY NCBI FILTERS 

979 results

RESULTS BY YEAR



[The intersection race/skin color and gender, smoking and excessive alcohol consumption: cross sectional analysis of the Brazilian National Health Survey, 2013.](#)

1
Cite
Share

Garcia GAF, Silva EKPD, Giatti L, Barreto SM.
Cad Saude Publica. 2021 Dec 1;37(11):e00224220. doi: 10.1590/0102-311X00224220. eCollection 2021.
PMID: 34877990 [Free article.](#)

Automated Indexing



NLM TECHNICAL BULLETIN

NATIONAL LIBRARY OF MEDICINE | NATIONAL INSTITUTES OF HEALTH

MEDLINE 2022 Initiative: Transition to Automated Indexing. NLM Tech Bull. 2021 Nov-Dec;(443):e5.

Q&A with Experts

Thanks for joining us!

